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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/780,751      | 02/19/2004  | Yoshiaki Nagashima   | A8319.0034/P034     | 1787             |

24998 7590 06/19/2006

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| EXAMINER |
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CHAPMAN JR, JOHN E

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| ART UNIT | PAPER NUMBER |
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2856

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/780,751

Applicant(s)

NAGASHIMA ET AL.

Examiner

John E. Chapman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,6,8,10-13 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8,15-22 and 24 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,10-13 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/13/06; 5/5/06
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 29 March 2006 and 5 May 2006 have been entered.

2. The amendment to the specification filed on 29 March 2006 does not comply with 37 CFR 1.121 because it does not unambiguously identify the location of the paragraphs to be replaced. While paragraph numbers are cited for replacement paragraphs, the specification on file in the application has not been provided with paragraph numbers. An amendment unambiguously identify the location of the paragraphs to be replaced should be provided.

3. The specification is objected to because it contains numerous terms which are not clear, concise and exact, and should be revised carefully. Examples of some unclear, inexact or verbose terms used in the specification are:

Page 16, lines 24-25, "having a boundary plane as a pipe arrangement (pipe laying) and a plate" is unclear.

Page 17, lines 25-26, "owns such a structure" is inexact.

Page 23, line 27, "wanted to be received by a recepting element" is unclear.

Page 26, line 13, "discontinued point" should be changed to --discontinuity--.

Appropriate correction is required.

4. The abstract of the disclosure is objected to because it is not commensurate with the claimed subject matter. The abstract should include that which is new in the art to which the invention pertains. Correction is required. See MPEP § 608.01(b).
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1, 2, 6, 10, 11-13 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is unclear. It is not clear what it means for transmission waves to be formed "in such a manner that said calculated reception waveforms are sequentially transmitted from such a reception waveform in an order of degree that reception time is late." It is noted that a method of forming a transmission waveform is described on pages 23-24 wherein a waveform " $u(2d,t)$ " is calculated on the basis of a reference waveform " $u(t)$ " and then time-inverted in accordance with formula (4). However, it is not clear that the claim language reads upon the disclosed method. The waveform " $u(2d,t)$ " is not described as a "reception waveform of a reflection wave," nor is there any apparent reception of the reference waveform " $u(t)$ " after a reflection, nor is there any apparent "order of a degree that reception time is late."

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Claims 2, 6, 10, 11-13 and 23 are unclear for the above reason.


7. Claims 8, 15-21, 22 and 24 are allowed.

8. Applicant's arguments filed 29 March 2006 have been fully considered but they are not persuasive. Applicant states that claims 1 and 12 have been amended in accordance with the Office action rejecting 1, 2, 6, 10, 11-13 and 23 under 35 U.S.C. 112, second paragraph. The amendments to the claims, however, did not remove the confusing terminology. Rather, the amendments merely added further limitations to the claims. No amendment was made to claim 23.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John E Chapman  
Primary Examiner  
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